# ARIZONA ANTIQUE RADIO CLUB NEWS

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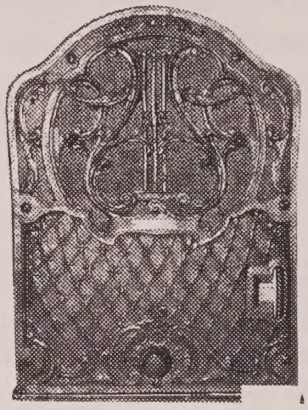


# ARIZONA ANTIQUE RADIO CLUB NEWS

Vol XVIX, No 2 Summer 2002

# Arizona Antique Radio Club
## www.azarc.org

**The Arizona Antique Radio Club** was organized in 1983 for the preservation of the history and artifacts of radio and television, and for the advancement of knowledge and appreciation of radio technology and communication. The Club is a non-profit corporation organized primarily for the mutual assistance of radio devotees and collectors in Arizona. Membership, however, is open to any persons who have an interest in radio and television history, preservation, restoration, and collecting.

**Meetings** are held from October through May and consist of touring collections, presentations of technical, historical or restoration information, thematic displays of radios and the autobiographical experiences of the members. Our antique radio Swap Meets are scheduled for Spring and Fall meetings. Members of the Board of Directors are elected at the annual business meeting in May. Most meetings are held on Saturdays in the Phoenix and Tucson areas, and when possible, elsewhere within Arizona.

**Membership** dues are $18 (individual) or $20 (family) per calendar year and provide access to all club benefits including the quarterly issues of the *Radio Club News*. Send dues or membership inquiries to: **Arizona Antique Radio Club, 1820 W. Raven Dr., Chandler, AZ 85248, phone 480-855-1282.**

***The Arizona Antique Radio Club News*** is the quarterly publication of the Arizona Antique Radio Club, Inc. It is mailed First Class to current members.

**Contributions:** submission of articles, news items, fiction, photographs and other materials relating to radio history and collecting are greatly appreciated, particularly if they have an Arizona connection. All members are encouraged to broaden their interest in the hobby by sharing their experiences, opinions, knowledge and observations with the club through its publication. Send materials for publication to **Arizona Antique Radio Club, 2025 E. LaJolla Dr., Tempe, Arizona, 85282-5910. Phone is 480-730-6058.** Email: **lettow@yahoo.com.**

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# A.A.R.C. NEWS

## OFFICERS ELECTED

The Board of Directors met in July at Carl Robert's house and chose officers for the club. Chosen for President was Dennis Craft. Carl Roberts, Steve Smith and Bill Lettow remain at their posts of Vice President, Treasurer and Editor, respectively. Our new Secretary is Jeff Shields, who will continue to be the club's Webmaster as well. The Board also discussed the possiblity of contacting every member this year by phone to get a sense of where the membership would like the club to go in the coming years.

## ABOUT YOUR MEMBERSHIP

With a new Secretary we have a differnt person for you to contact with questions about the status of your membership, changes of address or email address and questions about the mailing of the *Radio Club News*. That person is Jeff Shields and his address, phone and email address is on page 2, at the end of the first column.

We ask that when you renew your membership, you fill out a membership application, even if you have been a member for many years. This is especially important if renewing membership at a swapmeet or other club meeting. The reason we ask this is that it is extremely difficult to remember all those who gave cash to club officers or renewed "verbally". With a membership application filled out, we can avoid a great deal of confusion and later misunderstanding.

## BOOKMARK IT NOW

Our website at **www.azarc.org** is the place for the latest information, maps and contacts for all meetings.

It has the most current information the club has to offer on our meeting schedule.

You'll also find a lot of useful information on regional meetings and ham meets in neighboring states as well.

We are counting on you to keep us updated with your current email address. We find these addresses change frequently but only you can keep us up to date. This summer has seen another postage rate increase so it's looking like we will be relying even more on email to keep you informed of meetings during the coming year. If your email address has changed please notify Jeff Shields at jeffandkt@msn.com as soon as possible.

## WELL RUNS DRY

With this issue your Editor has run out of original articles to print for the first time since 1994. For those of you who wish to see the *Radio Club News* continue as it has for 19 years, offering interesting stories and information written by its members, then now is the time to step up to the the keyboard and start writing.

Some people claim publications like this one have no future; it's up to you to prove them wrong.

# Folks Ask: What's the AARC Fall Swap Meet Difference ?

| | eBay | AARC Swap Meet |
|---|---|---|
| Ability to See Merchandise | virtual | **You are there!** |
| Handle Mechandise | can't | **Please touch!** |
| Hear and Smell Merchandise | no way | **Unlimited!** |
| Get to know Seller | investigate seller's alias | **Shake Hands!** |
| Get to know Buyer | send email to buyer's alias | **Match Wits!** |
| Be Outside in Good Weather | get wireless net access | **November in Arizona!** |
| Feel Utterly Alone | ask your wife about this | **Only in Porta-Potty!** |
| Gratification Time Frame | maybe 2 weeks by ground | **Instant!** |
| Shipping Fees | somehow you always pay | **None!** |
| Pay Pal | risk your privacy | **Pay a Pal!** |
| Competition Level | entire world | **Mark Toppo!** |
| Hotdogs | www.hotdog.com | **Grilled to Perfection!** |

# AARC Fall Swap Meet

**Saturday, November 9, 8am at Antique Electronic Supply**
**Consignment and Donation Auction at 9:30**
You must be a paid-up member to sell (you can join at the meet)
To be fair to all, no one allowed on lot until 8am
For more info contact Carl Roberts (info on page 2)

# AARC 2002~2003 Events

*November 2002*

## Fall Swap Meet

See previous page.

*December 2002*

No meeting to be held this year.

*January 2003*

## Tucson Swap Meet

Scheduled for January 18th OR 25th in the Tucson area, starts at 8am, final date and location to be announced. Visit www.azarc.org for last minute details and maps for all club events.

*February 2003*

## Tour of Collections

Tentative date is Saturday, February 22. Planned is a tour of 4 or 5 member's collections in the Tempe/Awatukee/East Valley area in one afternoon. Final details to be announced.

*March 2003*

## Spring Swap Meet

Saturday, March 8, Scottsdale Community College at the Hamfest, starting as early as you want. This year we are inviting all members to set up an "antique radio row" in the easternmost row at the Hamfest. The club will have a booth and we can sample the pickings at the Hamfest.

*April 2003*

## Radio Roundup

Our annual display of member's radios based on a theme, this year together with our annual business meeting. Date is now April 19, but watch for changes. Roundup theme and location to be announced later. Awards given for display items.

*May 2003*

No meeting to be held this year.

# My Ticket Off the Farm

The year was 1935 and I had discovered radio.

The two-room school that I attended, as an eight-year-old son of an Oklahoma sharecropper, was an unlikely place to discover much more than reading, writing and arithmetic. We referred to the two schoolrooms as the little room, grades one through four, and the big room, grades five through eight. The two rooms were presided over by two teachers, one per room with the big room teacher being the boss. The county education department had graced the big room with a new set of Britannicas and their old set was passed down to the little room. The old set from the little room was given to the students to do with as they pleased. Purely by chance, I got the book with a fairly extensive dissertation on the wonders of radio and associated electronics. I quickly became totally hooked!

One of our neighbors was a well-to-do landowner, complete with a 32 volt Delco lighting system, who subscribed to *Popular Mechanics* magazine for his two teen-age sons. My mother and this neighbor lady were active in quilting bees and upon hearing of my interests, the lady gave me a huge collection of 1930s *Popular Mechanics* that had accumulated in their garage. This was manna from heaven to me. We were far too poor to afford the purchase of magazines or books other than required schoolbooks.

I spent every moment I could leafing through the pages of the magazines drooling over the copper tubing plate coils on the ham transmitters than they offered construction plans for, as well as the short wave and broadcast regen and TRF receivers. My only mentor was the son of the owner of the local auto repair shop. He was about twenty years old and usually gave me the opportunity to pick his brains when we came into town, (population 400 including dogs, cats and chickens), for groceries and farming supplies. The high point of one of those visits was when I had ten cents to buy a grid leak from him. I found a junk chassis at the town dump and what a treasure that was. I still had no money to buy other parts I needed to build my one tuber. I set up shop in a unoccupied stable in the barn and spent hours dreaming about my ultimate career in radio.

The year is 1940 and I am a freshman in high school. I am now riding the school bus to school in the aforementioned big city. Another rider

whom I lived with my freshman year had a large Watterson multi battery operated table radio that I could listen to "Captain Frank Hawks" on but dared not delve into its innards. The radio club we tried to form at school never quite made it so I continued to aggravate whomever I could to glean all the knowledge I could.

I moved back with my parents, who had moved to a different and more productive farm, for the rest of my high school years. Pearl Harbor was hit and we were at war. My mother, who had been a schoolteacher before I was born, went back to college and got a new teaching certificate and began teaching again. The better farm and my mother teaching really improved our financial situation and we even had a used Silvertone radio that ran off a six volt storage battery; my first introduction to a vibrator power supply. The battery was good for about a month if we rationed our playing time carefully then it was off to town to spend a week on the old Tungar mercury vapor trickle charger at the auto repair shop. We were about 130 miles from Oklahoma City as well as Tulsa so I cut down a tall ash sapling and ran a nice long wire antenna from the top of the pole to the gable on the house. The radios' broadcast and short wave bands came in quite well.

I really despised farm life and studied my regular subjects, as well as all I could find on radio and electronics, so I would never have to be a farmer. I built my first one tube radio out of scrap parts I had accumulated and pulled B plugs and filament out of the Silvertone. My father threatened me with total extermination every time he caught me with the family radio torn apart but I never quit and he never exterminated. My electronics knowledge was now such that was teaching the radio and electron theory part of the general science classes at the request of the regular teacher. I also had charge accounts with Allied and Lafayette Radio and was doing radio servicing for friends and neighbors. Most of the radios were powered by 1.5/90 volt farm packs or are AC/DC models using the all American five. I graduated high school in 1944 and it was still several years before the rural area I was raised in was electrified.

I was all of sixteen years old and off to Oklahoma City to seek my fortune in the great world of electronics. My aunt and uncle were kind enough to take me in and I began pounding the streets the next day seeking a job repairing radios. I got a job the first day out. Welcome to the world of real AC powered radios with interstage transformers, field coils and all the stuff I knew nearly nothing about. I worked there a week and the high point was installing a radio in a 1937 Dodge that I actually succeeded in

# by Carl Roberts

doing properly, the car owner tipping me a dime. Hey, I had been working for a dollar a day on the neighbors' farms so a ten-cent tip represented over an hour of farm work. Came the end of the week and the shop owner gave me five bucks for six days work and said that was all I was worth. Bruised but not beaten, I quit.

Monday brought new enthusiasm and I hit the streets again, again and again. The twenty dollars I had left home with plus the six I had earned were near gone but I was able to pick up some yard work and have walking around money. Finally I wandered into a small shop on the edge of the red light district and the owner agreed to pay me twenty-five dollars for every five tube AC/DC radio I built for him. This was wartime and there were no radios to buy, so he had a steady market for all he could get built. He had cute little waterfall front birdseye maple cases, punched chassis, photographed dials and long black pointer dial knobs and indicators. There existed an assortment of IF cans, oscillator and antenna coils, five inch round PM speakers and 300ma tubes.

I built the first few radios in good time and picked up some money but the owner decided I should only get ten dollars per radio. I could have lived with that except that we spent a lot of time scrounging for more parts and redesigning to utilize the parts we could find. The upside was the owner was really a nice guy and spent a lot of time teaching me the ins and outs of radio circuitry. He let me do some repairs at fifty percent commission to keep me making money when we had no parts to build radios. He also helped me enroll in a special radio and electronics course sponsored by Oklahoma University and taught by a great professor at one of the local high schools.

My ultimate goal had been to go to work in electronics at Tinker Air Force Base but they didn't hire sixteen-year-olds. My uncle who worked there had some clout and finally got me in with a top security clearance to work with Sperry auto pilot equipment and Sperry and Norden Bombsights. This equipment was very electromechanical and much like servicing record changers, just more secret. I quickly learned my way around and used the bombsight complex as a springboard to the hangars and another top secret project: installing the first radar navigation and bombsight equipment on a squadron of B-29s being readied to bomb mainland Japan. I had just turned seventeen and life was good!

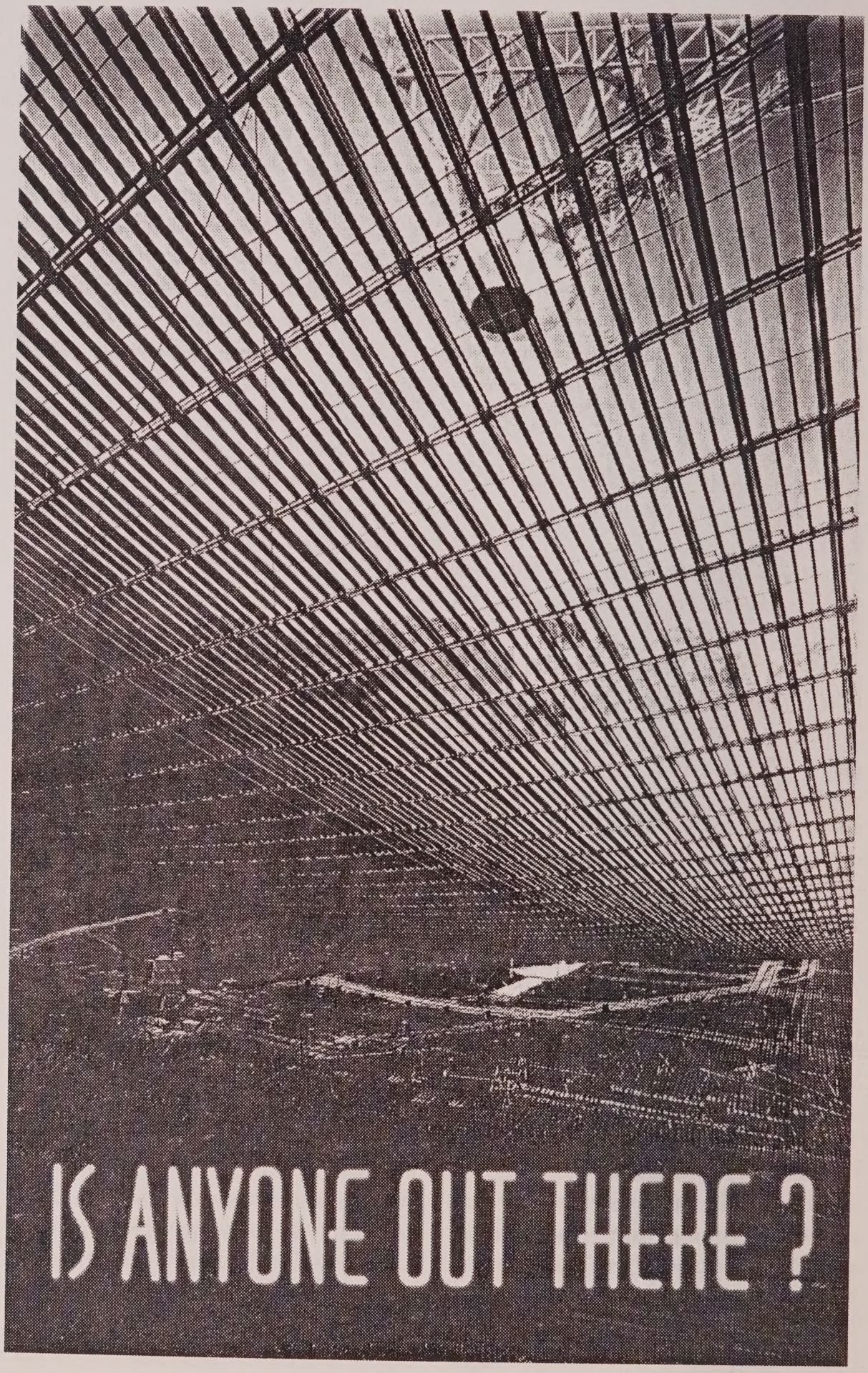
A good portion of my time at Tinker AFB was working the swing shift so I had time on my hands in the mornings and early afternoon. A supervisor tipped me off that a friend of his had purchased a radio repair shop downtown and needed some one to help him take care of repairs. I was soon making as much money at the repair shop as I was at Tinker and ultimately went full time at the repair shop. I was soon making four to eight hundred dollars a week in commissions and living the good life. I had met a young lady while at Tinker and married her in April of 1945 at the ripe old age of seventeen.

Suddenly the war in Europe was over and all the GIs were coming home to pick up where they left off. Jobs for a non-vet were rather scarce and radio production was back in full swing so the radio repair business went into a tailspin.

I worked here and there for some other radio shops but it was hard to make a living and by now my wife was expecting. I got a job as an automotive electrician for the city bus company for a while and when my daughter was a year old, we stocked up on radio repair parts and moved to my hometown where we rented a corner in a grocery store and set up shop. Business was good but remember we are dealing with a population of four hundred including cats, dogs and chickens. The latter don't have radios and neither did that sixty percent of the population that was school age or younger. Suffice to say, it didn't take too long for me to repair myself out of business.

All the veterans coming back and buying homes and all the other GI Bill perks led me to believe I should be one of them so at nineteen with a wife and daughter, I became a member of the regular army with an eighteen month enlistment which I later stretched to thirty-six. I took every radio course the army had to offer then I got a permanent assignment to the Army Signal School to teach. This was certainly one of my great life experiences.

Army time was served and then I was categorized as a WW II veteran with all the goodies. I get a job with Philco in Oklahoma City and bought my first home on the GI Bill for eighty-seven hundred dollars. That same house sold four years ago for thirty-eight thousand dollars. My mother had lived in it for over forty years.


IS ANYONE OUT THERE ?

# BY HARRY HYDER

*IS ANYONE OUT THERE?* is the name of a book by Dr. Frank Drake, one of the founders of SETI, The Search for Extraterrestrial Intelligence. SETI is an organization of astronomers, other scientists and interested laymen listening for radio signals that could indicate that intelligence exists elsewhere in the cosmos.

If you have a radio that tunes in the neighborhood of 1.5 GHz and a lot of time on your hands, you can join in this search.

There are billions of stars in the universe and probably billions of planets. Is it likely that our own is the only one on which an intelligent technological civilization developed? SETI members believe not.

Over the centuries, men have looked to the skies and wondered what was out there. Myths and legends were invented to explain what they imagined. In the 19th century came the idea that on the moon and the planets there might be intelligent beings similar to earthlings. By the beginning of the 20th century enough had been learned about our solar system to tell us that life on the moon or the planets was improbable. This left the stars, but even through the most powerful telescopes of that time, the stars were mere points of light, and the Milky Way was the limit of man's vision. What was beyond looked like clouds of gas called "nebula". More powerful telescopes were made, and what were thought to be nebulae were really clouds of galaxies. At the present, galaxies are estimated to number in the billions, each containing millions of stars. Is it at all possible, astronomers wondered, that our own own insignificant planet in a minor galaxy could be the only planet among countless others that contains intelligent life? That seems improbable.

But even with today's giant telescopes, the stars are still just points of light, although planets have recently been observed indirectly by measuring their gravitational effect on their parent stars, or by measuring the star's slight dimming as a planet passes in front of it.

In 1931, Karl Januky of Bell Labs was investigating the effect of atmospheric noise on radio communication. He accidentally noticed that some noise originated in the milky way rather than the atmosphere. He reported this, but it excited little interest. One person it did interest was Grote Reber, W9GFZ, a ham in Illinois. Reber built a large steerable antenna in his backyard and in the next few years identified several other cosmic noise sources. Reber can be considered the first radio astronomer. Later in the 1930s, with war approaching and microwave radar under intense development, noise phenomena became an important study. After the war, scientists began to think that exploring the universe by radio might tell them things that optical astronomy could not. And in the back of their minds was the idea that since optical astronomy could not tell them of the existence of intelligent creatures in space, perhaps radio astronomy could.

The 1000 foot diameter dish at Arecibo, Puerto Rico.

The argument went like this: of the assumed billions of planets in the universe, some percentage should have developed a technological civilization and some of them would desire to communicate with other planets in the universe. Communication by radio was the obvious method. Where to listen? It would have to be in the microwave region because at

lower frequencies atmospheric noise overwhelmed cosmic noise. A favored spot was in the vicinity of 1.5 GHz, because it was relatively free of other cosmic noises. It was assumed that any cosmic technologically knowledgeable civilization would know this.

In the 1950s large, steerable radio telescopes were being built. The first was a 250 foot diameter dish in England, which started operating in 1957. Others were built in the United States, Australia and other countries. In 1962 a 300 foot telescope at Greenbank, West Virginia, began operating but collapsed in 1988. In 1995 it was replaced by a 328 foot dish. It is the world's largest fully steerable radio telescope. A larger dish is at Arecibo, Puerto Rico. It has a diameter of 1,000 feet. It is built in a hollow on a hilltop and is not steerable. As the earth rotates, it sees a very large part of the sky. Its shape is spherical rather than parabaloidal, which permits the focal point to move a small amount at right angles to the direction of rotation. This increases the viewed area at a small reduction in sharpness of focus.

Of course, these giant radio telescopes were not built primarily for looking for extraterrestrial intelligence. But many radio astronomers certainly had it in the back of their minds that the telescopes could be used for that purpose when not engaged in more important work.

Starting about 1960, the search for extraterrestrial intelligence proceeded. For a time it was funded by NASA, and called Project OZMA. Government funding ended in 1982. Since then it has been funded completely privately. Time on radio telescopes is free when it cam be obtained. Much has been spent on the design and construction of receiving systems that can scan a very large number of channels and analyze signals.

Of course, astronomers do not envision being able to carry on a two-way conversation with extraterrestrials. The distances and resulting time delays are far too great, but receiving a signal that could positively be identified as coming from an extraterrestrial source would be one of the greatest events in history. So far, no extraterrestrial signal has been heard.

Is there room in SETI for interested amateurs? SETI believes so. Some discoveries have been made by amateurs working alone. Many comets, such as the recent Shoemaker-Levy were discovered by amateur astronomers.

If you were to hear a signal that you suspected might be of extraterrestrial origin, what would it sound like? There you would be in the same position as the professionals: no one knows. Of course one of the great problems of the search is identifying and rejecting signals originating on earth. SETI has developed PC software to aid in this.

If you are interested in joining the SETI effort, write or go to www.setileague.org.

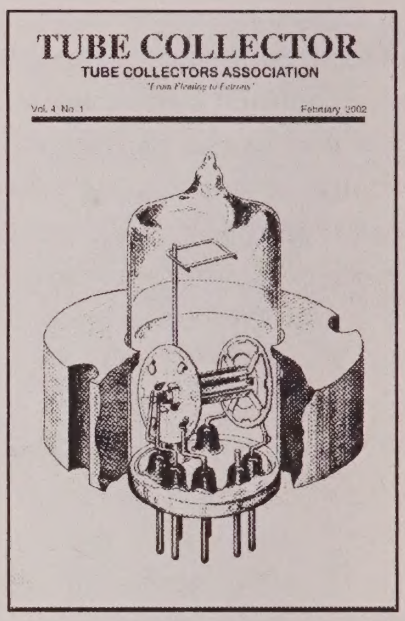
*Reviews:*

# The Collector's Vacuum Tube Handbook Volume I: The Non-RMA Numbered Receiving Tubes

By Robert T. Millard
Sonoran Publishing Company, 2001

# Tube Collector

Published by the Tube Collectors Association, Ludwell Sibley, Editor




*Reviewed by Bill Lettow*

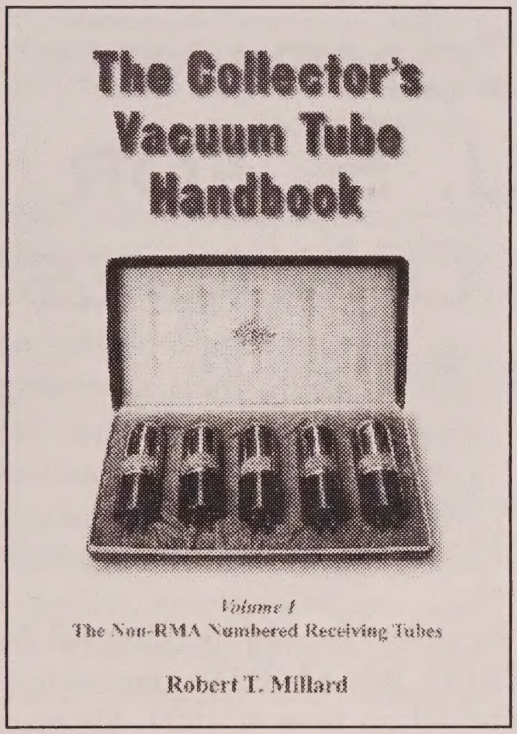
Several years ago AARC Founder George H. Fathauer presented a program on tubes and tube collecting at one of our May meetings. For many of those who attended, it was our first introduction to a sideline of the antique radio hobby. George told us how "collectable" tubes were becoming, how prices were still reasonable, how it wasn't too late to get started and how interesting tubes could be, exclusive of their use in our old radios.

Today we have a several books on tubes and collecting, a club for tube collectors and a brisk international market utilizing eBay auctions and more traditional methods of buying and selling. Formerly obscure tubes and manufacturers are coming to light; at the same time high-end tube audio and restored classic guitar amps are renewing interest in what was once considered dead technology.

Into this percolating environment steps a new book by Robert T. Millard, *The Collector's Vacuum Tube Handbook*. It is labeled Volume I and it restricts itself to tubes produced before the Radio Manufacturers Association standardized the tube numbering system in 1934. The book consists of pages devoted to about 200 tubes, with their basing diagrams, pictures and ratings data. The data is separated into "Maximum Ratings", presumably published values, and "Typical Ratings" which were in most cases measured by the author.

I am not a tube collector, one large collection of antique radios is all I can manage, so my comments are based on the usefulness of this book to a new collector, or to a radio collector wanting to branch out a bit, or to someone who has some tubes and is trying to determine their value. For these purposes the book may be of some usefulness by bringing together information available elsewhere into sort of a "greatest hits" format.

For the devoted tube fanatic the book probably doesn't cover any new ground and would be of limited value. I want to hedge my bet somewhat here because I am not knowledgeable enough to speak for this group. But it is significant that it isn't readily




appearent which group the book is intended for.

The book could be helpful at a swapmeet, when digging around in boxes looking for hidden treasures. But there are no current prices in the book and a couple of other factors are limiting. One is that there is no table of contents and the 200 tubes are not in any order that a newcomer could figure out. They are probably in chronological order by manufacturer or technological innovation; you'll have to consult the meager index at the back of the book to take you to the right page. The other limitation is that the book is big; a real "handbook" that could fit in a pocket would be more useful.

Although the electrical data given for each tube is welcomed, the book limits its audience by not providing the fundamentals on how to test tubes or interpret the data.

The book lacks some tube basics, like the identification of tube shape designations. In the descriptions that accompany each tube these designations are often used, so if you don't recognize the codes you'll have to consult another book.

In general the information given will be too technical and not basic enough for the casual reader; for devotees it isn't meaty enough. The newbie will wonder where the current prices are, the old pro will wonder where the more obscure tubes are. The former would be better served by George A. Fathauer's *Radio Tubes and Boxes of the 1920s*, a book that will provide the basics and whose pictures will be an inspiration to the casual reader. The latter will find Ludwell Sibley's *Tube Lore* a better bet.

For current pricing, your tube collecting dollar would be better spent with a subscription to *Tube Collector*, where current auction prices are compiled and printed as a regular feature.

*Tube Collector* is in fact, a great little journal. Definitely not for the casual reader, this publication is just brimming with the enthusiasm of it contributors. The articles are wonderfully esoteric and packed with detailed technical drawings and enough numerical data to thrill the most hardcore aficionado. The articles include bibliographies that invite further research and study.

There are plenty of schematics, but there are quite a few pictures and articles that are quite interesting to the antique radio collector. The auction prices and the want ads alone make this publication useful for the tube, and radio, collector.

# Marconi Company Sues the U. S. for $1,000,000 Damages

By A. Press, B.Sc.

*The Marconi lawsuit against the U.S. government was very important in the history of radio because one of the rulings of the court was that triodes could not be manufactured unless the manufacturer was licensed under both the Marconi-Fleming patents and the DeForest triode patent, which was controlled by AT&T. This was not settled until 1919, when AT&T joined General Electric to form RCA and RCA bought American Marconi. RCA then became the only company in the U.S. that could legally sell triodes (manufactured by GE).*

*This article appeared in the January, 1917 issue of* The Electrical Experimenter, *a Hugo Gernsback publication.*

*-Harry Hyder*

The Marconi Wireless Telegraph Company of America on July 19, filed in the Court of Claims, a petition against the United States, charging that since June 25, 1910, the United States, through the Army and Navy departments, and the Department of Commerce, has constructed and used apparatus embodying the inventions covered by four certain patents in violation of the rights of the Marconi Company.

The patents in question are as follows:

Re-Issue No. 11913 (Original No. 586193, July 13, l897), granted to G. Marconi on June 4, 1901, for transmitting electrical impulses and signals and apparatus therefor.

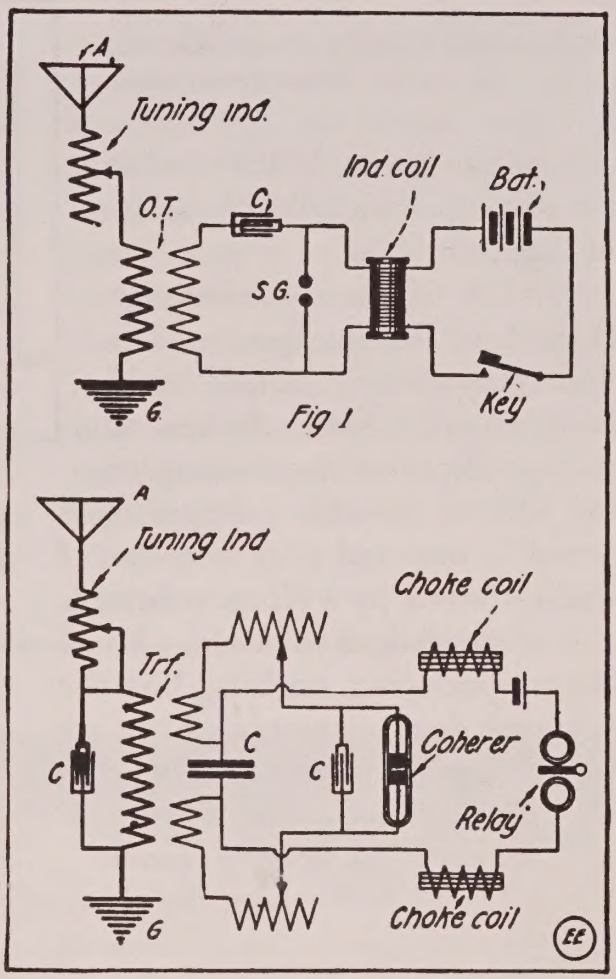
No. 609154, granted to O. J. Lodge on August 16, 1898, for inventions in electric telegraphy.

No. 763772, granted to G. Marconi on June 28, 1904, for apparatus for wireless telegraphy.

No. 803684, granted to J. A. Fleming on November 7, 1905, for instrument for converting alternating electrical currents into continuous currents.

The petitioner avers among other things that the United States, through its officers or officials of its Department of the Navy, its Department of War, its Department of Commerce, knowing that the validity of said letters patent had been adjudicated in favor of your petitioner by several of the Courts of the United States, has, since the twenty-fifth day of June, 1910, and before the filing of this petition, made and constructed, and used, a very large amount of apparatus con-

MARCONI'S PATENT NO. 763772 (1904) PURPORTS TO COVER SELECTIVE TUNING IN A RATHER MONOPOLISTIC MANNER.



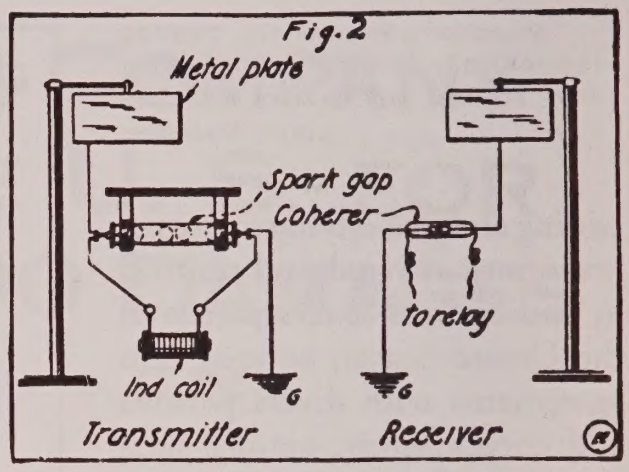

taining and embodying in use the inventions covered and claimed in and by said letters patent of the United States; entered into agreements with divers persons and corporations, among such persons and corporations being Fritz Lowenstein, Emil J. Simon, Telefunken Wireless Telegraph Company, Atlantic Communication Company, Kilbourne and Clark Company and Wireless Specialty Apparatus Company. The Marconi Company claims that this has resulted in great injury, damage and loss in the aggregate sum of $1,000,000.

Turning to the particular patents in question it would appear that, the principal object of the Marconi invention cited in patent No. 763772 of 1904, appears to be to selectively syntonize a receiving station with a transmitting station. Strangely enough, one of the claims, claim 20, is of so indefinite a nature as to virtually control the broad idea of tuning a receiver circuit to be perfectly responsive to a transmitting circuit. It is a question whether a claim of such monopolistic scope can be maintained, because in the claim itself no particular means is set out whereby the well-known and desired object is to be attained.

From the fact that the patent discloses an adjustable reactance inserted in the antenna circuit, it follows that a certain degree of flexibility or adjustment is given to the system. The claims therefore are directed not only to the insertion of a reactance, whether variable or not, into the antenna circuit, but also to the possibility of attuning the practically closed oscillation circuit with the radiating or antenna circuit or with the transmission station. Their latter claims have certainly a much better chance of being maintained. The transmitter and receiving circuits are indicated at Fig. 1.

In the Marconi patent 11913, which is a reissue of the patent 586193 dated July 13, 1897, the invention goes back to the very early days when the earthed antenna terminal, both for sending and receiving was evolved. Acknowledgment is made of the work

MARCONI PATENT NO. 11913 (1901) COVERS THE EARTH CONNECTION AND OTHER FEATURES.




of Popoff in Russia, 1895-6, and of the writings of Sir Oliver J. Lodge in England, 1894.

In view of the disclaimer to claim 1, of the specification, it is difficult to see how claim 24 could be maintained, for in the text of the specification the making of the coherer tubes is acknowledged as well known and since reception of wireless waves by a filings coherer is also acknowledged to be old, a broad claim specifying nothing but the acknowledged elements of the art would seem to be in the same class with the disclaimed first claim which is of the same indefinite character.

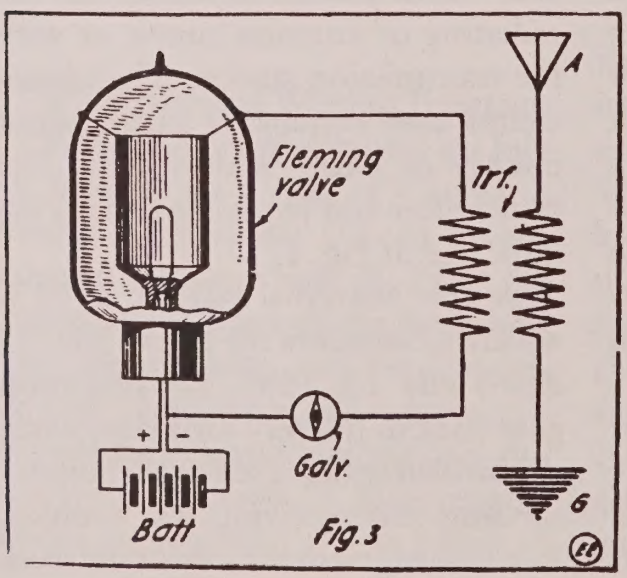
The strong point about the above patent appears to be the reference to the earthed antenna circuit, though the claims are by no means as broad as would appear to be warranted. In the very early days of wireless the filing-tube-trembler element was employed but this feature was soon discarded for other types of detectors. The appended Fig. 2 shows the essentials of the above features.

The Lodge patent 609154, dated August 16, 1898, seems to be directed particularly to the insertion of a variable reactance in the antenna circuit and also to the possibility of magnetically coupling the detector circuit to the antenna by means of a transformer.

Apparently the intention is to span the period from August 16, 1898, to date, by means of the patent as well as the later one issued to Marconi under No. 763772 as of date June 28, 1904. It is a little difficult to reconcile claim 7 of 763772 to Marconi with claim 1, for example, of 609154 of Lodge.

Undoubtedly this matter would be taken up on its merits during the course of the suit, if it is the intention of the Marconi interests to sue on the basis of the above-referred-to claims.

With respect to the Fleming patent 803684 it is directed to the vacuum oscillation valve in



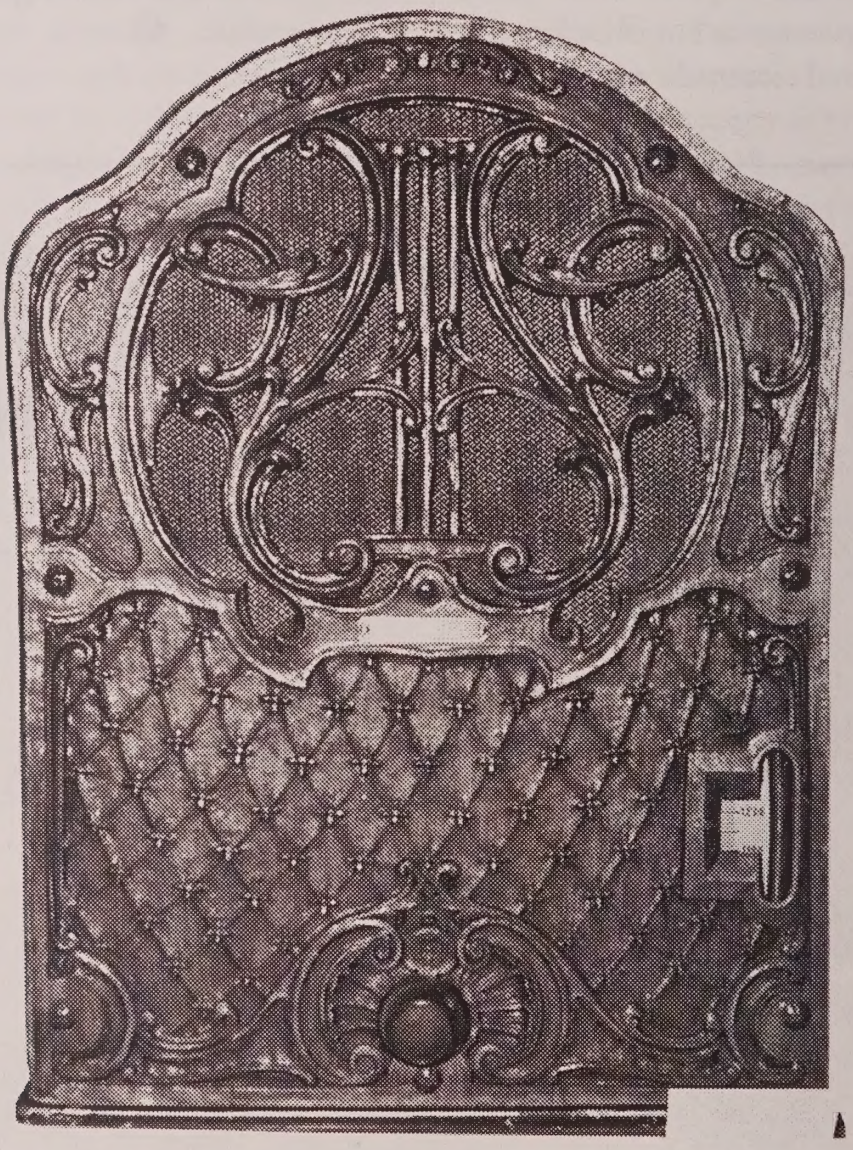

THE FAMOUS FLEMING VALVE PATENT, WHICH APPEARS TO COVER MOST VACUUM TUBE DETECTORS OF THIS GENERAL TYPE.

which there is a rectification of current in precisely the same manner as in the important de Forest Audion valve. The fact that in any Audion type of valve three conductors are present or in fact necessary for current amplification, cannot, in any manner, affect the validity of the claims.

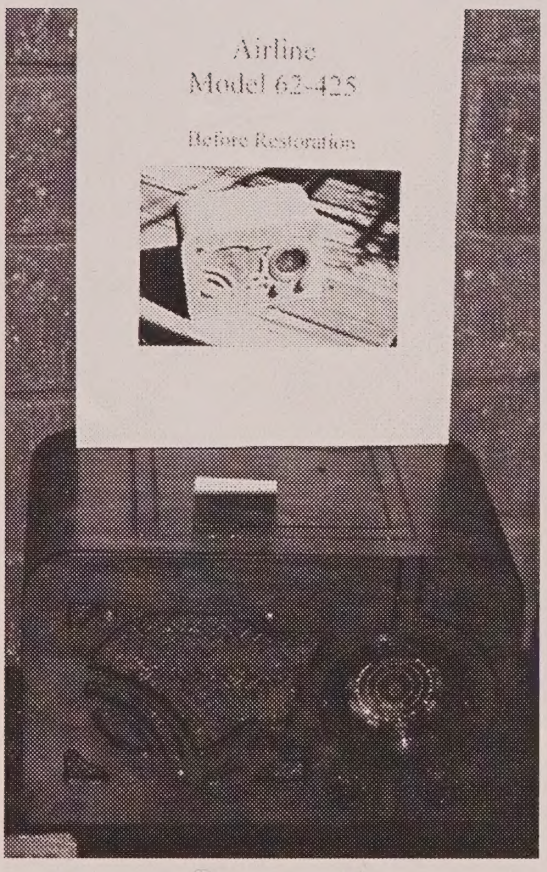
It is rather strange that the claims in the Fleming patent, in the broader aspect, should require that there should be present a circuit connecting the heated electrode with another electrode led in to the vacuum chamber. In so far as a receiving station is concerned, the patent is limited to means for detecting a continuous current in the circuit. When a transformer is incorporated into the circuit for the detection of current, the claims appear to fail in outlining the necessary protection. The subjoined illustration, Fig. 3, shows one form of the Fleming oscillation valve rectifier.

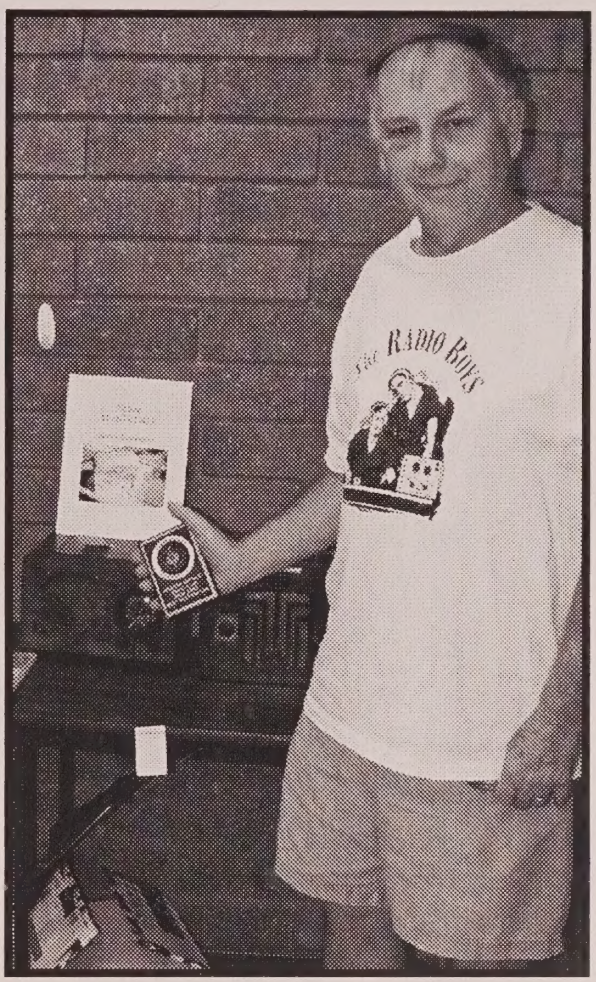
A memorial to the importance of radio during the wartime presidentcy of FDR, crafted in bronze, at the FDR Memorial in Washington, D.C. (Photo by Al Sekela)

# 2002 Radio Roundup
# HOUSE BRANDS



This 1932 Acratone "Equitone" was a radio sold by Federated Purchasers and is now in the collection of Martin Bergan. The cabinet is steel painted as wood with a repwood front panel. It was voted Most Unique and was one of two radios tying for Best of Show.

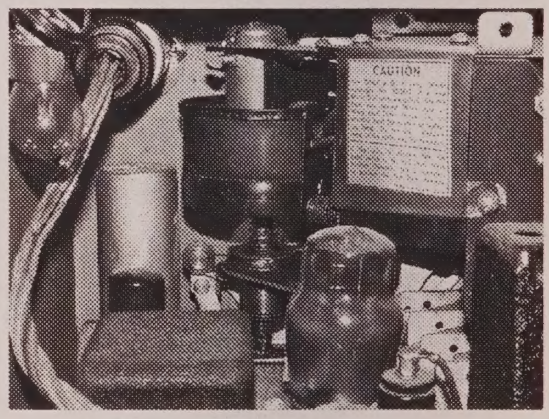


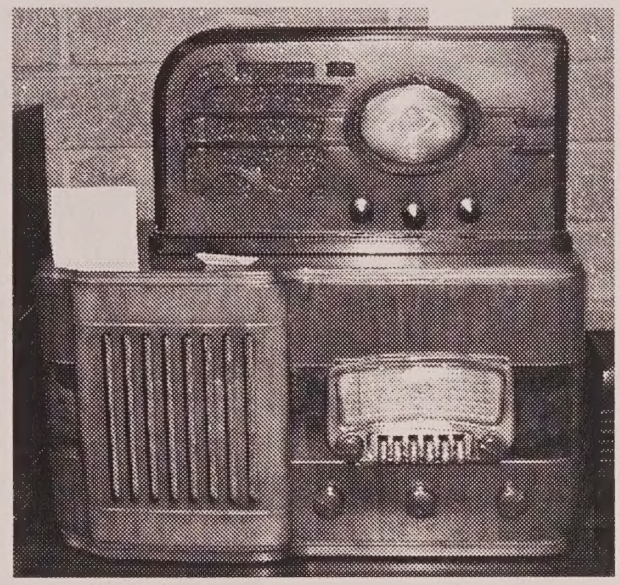

Montgomery Ward's house brand, Airline was very well represented at the Radio Roundup. Walt Brendecke (above) received the Best Restoration award for the massive recovery he did of a heavily painted Airline.

At right is Martin Bergan receiving one of the two awards he took home for his Acratone radio.

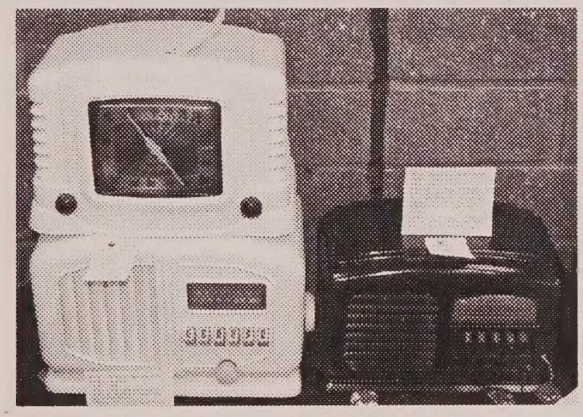
The Radio Roundup was held in February.

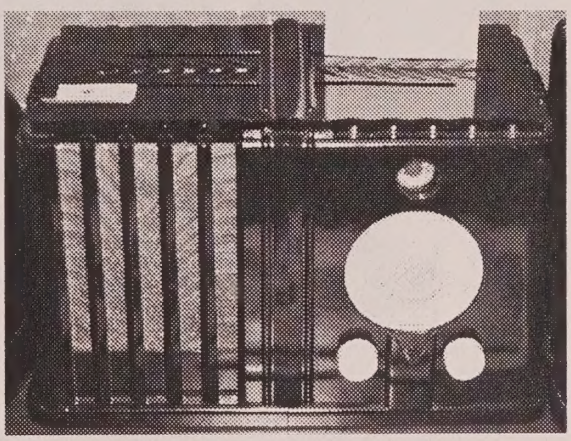



1937 Airline "Movie Dial" radio, displayed by Bill Lettow. Although the dial, above, is way cool, the inner workings of the dial (at right) don't inspire confidence.

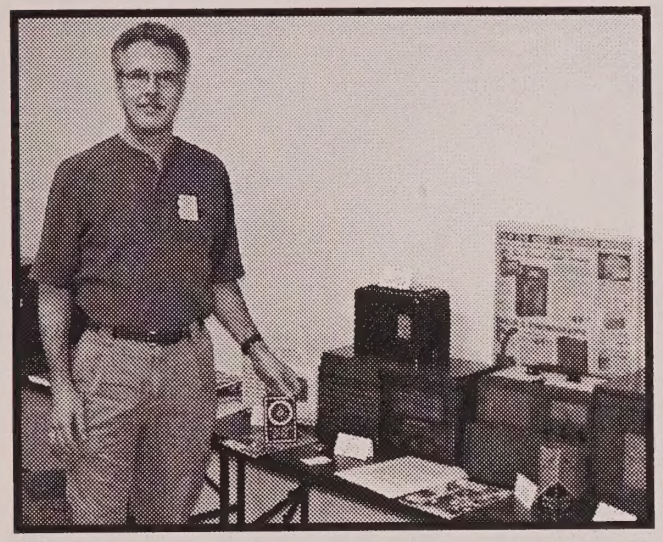


Carl Roberts won the Best Display award for his large show of Airline radios. Many model years were represented as well as several different orginal manufacturers.





Steve Smith made the extra effort to bring in this console, and was rewarded with the Best Console prize. It is a Coronado, which was the Gambel's Stores house brand, but it was built by Zenith in 1933.

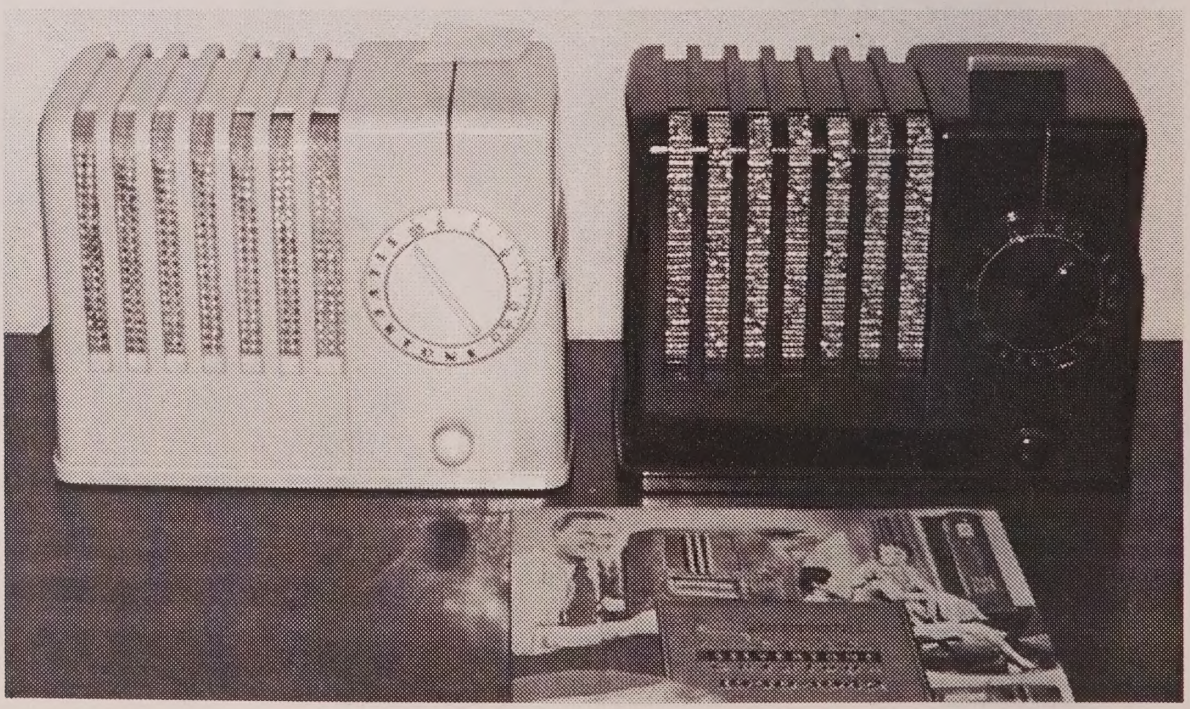


Steve also won the Best Story award, for his telling of the Gambel's story. Steve's family in Nebraska used to own a Gambel's and Steve has been collecting Gambel's memorabilia for years.

There were many house-branded tubes, as stores cashed in on name recognition to boost profits. There were even tubes branded with radio station call-letters such as this WLS tube. The tubes and the long list of house brands were displayed by George H. Fathauer.

At right is Bob Bakinowski's 1927 Silvertone 6 tube TRF radio, probably the first house brand radio. Sears went from watches to musical instuments to mail order sales, and started selling radios as early as 1919. With their purchase of King Manufacturing, radio sales took off.

Below, a matched set of Silvertone 4500s, shown by Bill Lettow.



Bob Bakinowski did it again, this year taking the awards for Earliest Radio and tying for Best of Show. His display of the 1927 Silvertone, with contemporary batteries, aerial, speaker and telephones was first rate, and he provided us with an excellent history of the Silvertone name.

# AARC Members 2002

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**Underlined names are 1983 Charter Members of the club.**

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Mark Bretz and his son at the 2002 Spring Swap Meet. Another few years and Mark can roam freely while his son holds the fort.

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This is how it's done. Clyde Watson roams freely while his daughter Kathy holds the fort at the Spring Swap Meet.

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Vic Bang found this at the Spring Swap Meet. It's the box for an Andrea Television Kit. Now where are all the parts?

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*When Wards first christened this amazing new development "THE MOVIE DIAL," no famous stars had even seen it! We gave it this name, simply because its operation of projecting station call-letters (from a film to a lighted screen) is exactly the same as a movie projector's. Recently, however, a group of movie stars were thrilled by Airline's sensational radio improvement. During the filming of Samuel Goldwyn's production, "In Love and War," the entire cast, including the glamorous Merle Oberon, was on location in the Sierra Nevada Mountains. During these many weeks, their greatest pleasure and relaxation came from listening to one of Wards Movie Dial Airlines.

**MERLE OBERON**

# DIAL OF THE MOVIE STARS

THE MOST sensational radio improvement of all time! An improvement exclusive with Wards! An illustrious addition to the list of Wards "Famous Firsts" . . . a list that includes Single Dial Control, Personal Tone Control, Kromatic Tuning, and Instant Dialing. In all of these, Wards led the way . . . and the world of radio followed!

● Turn the 2-speed tuner, and the world of call-letters whizzes by! Letters so big you can read 'em and tune STANDING UP! No more uncomfortable stooping, or squatting, or squinting! No need for spectacles, or a magnifying glass! You can read *these* letters from across the room! (Distance-fans, take note:—you see at a glance what city and station you've tuned, without the bother of waiting for station announcements! Even the foreigns are listed by letter and name! "Berlin, Germany, DJB.")

● The short-wave sections are more than just a dial. They're almost a map . . . a perfect travel guide to what-goes-on in every wave band, and where and how to get it.

● The Movie Dial eliminates overlapping of stations. More space *between* stations than ever before! (Actually 20 times as much as in the 1936 Instant Dial! 2½ inches for a 10 K.C. spread!) The easiest-tuning instrument in all the history of radio!

**NO NUMBERS TO REMEMBER (OR FORGET!)** You can find your station by letter, or city, or number . . . just as you prefer. The numbers are there, in case you want 'em.

**CHOOSE YOUR WAVE BAND BY TOUCHING A BUTTON!**
3 dials in 1 . . . long, short, foreign . . . and only ONE shows at a time. You choose from the world of airwaves, by touching a button!